UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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OFFICE OF
AIR AND RADIATION

The Honorable Ed Whitfield
Chairman
Subcommittee on Energy and Power
Committee on Energy and Commerce
U.S. House of Representatives
Washington D.C. 20515

Dear Chairman Whitfield:

I am writing in response to your letter of May 17, 2012, co-signed by Chairman Upton, regarding the U.S. Environmental Protection Agency's proposed rule regulating carbon dioxide emissions under the Clean Air Act's New Source Performance Standards.

As you know, on March 27, 2012, the Environmental Protection Agency (EPA) proposed a Carbon Pollution Standard for New Power Plants. This common-sense step under the Clean Air Act would, for the first time, set national limits on the amount of carbon pollution power plants, built in the future, can emit.

EPA's proposed standard reflects the ongoing trend in the power sector to build cleaner plants that take advantage of American-made technologies. The agency's proposal, which does not apply to plants currently operating or new permitted plants that begin construction over the next 12 months, is flexible and would help minimize carbon pollution through the deployment of the same types of modern technologies and steps that power companies are already taking to build the next generation of power plants.

EPA's proposal would ensure that this progress toward a cleaner, safer and more modern power sector continues. Power plants are the largest individual sources of carbon pollution in the United States and currently there are no uniform national limits on the amount of carbon pollution that future power plants will be able to emit. Consistent with the US Supreme Court's decision in 2009, EPA determined that greenhouse gas pollution threatens Americans' health and welfare by leading to long lasting changes in our climate that can have a range of negative effects on human health and the environment. The enclosure provides detailed responses to your questions.

If you have further questions, please contact me or your staff may call Cheryl Mackay in the EPA's Office of Congressional and Intergovernmental Affairs at (202)564-2023.

Sincerely,

Gina McCarthy
Assistant Administrator

Enclosures

RESPONSES TO QUESTIONS RAISED IN MAY 17, 2012, LETTER FROM CHAIRMEN UPTON AND WHITFIELD

1. In the EPA's proposed rule to regulate carbon dioxide (CO_2) emissions from new electric generating units (EGUs) under the Clean Air Act New Source Performance Standards (NSPS) program, the EPA maintains that it is authorized to regulate greenhouse gas (GHG) emissions from power plants based on previous endangerment findings relating to non-GHG pollutants made for the source categories addressed in this rulemaking.

a. Does the EPA take the position that it has the authority, and that it has already made the prerequisite endangerment findings, to regulate GHG emissions from all sources currently regulated under the NSPS program? Please provide all legal opinions or memoranda relating to this position.

By its terms, Clean Air Act (CAA) section 111 provides that the EPA must list a source category for regulation if the category causes or contributes significantly to air pollution that may reasonably be anticipated to endanger public health or welfare, and once the EPA does so, the EPA must then establish requirements for new sources in that source category. CAA section 111(b)(1). In the proposed Carbon Pollution Standard for New Power Plants, the EPA included a proposed interpretation, and two alternative interpretations, concerning whether these provisions authorize the EPA to regulate GHG emissions from power plants without having to make a separate endangerment or cause-or-contribute-significantly finding for GHG emissions. Specifically, the EPA stated:

> The EPA proposes to interpret these provisions so that it is authorized to promulgate the rulemaking proposed today because it has already determined that both the Da and KKKK source categories cause or contribute significantly to air pollution that may reasonably be anticipated to endanger public health or welfare. The EPA solicits comment on interpreting CAA section 111 in the alternative so as to require (i) an endangerment finding for air pollution not specifically covered by the endangerment finding the EPA made when listing the source category, but that in this case, the EPA's 2009 Endangerment Finding for GHGs under Section 202(a) of the CAA (along with the EPA's 2010 denial of petitions to reconsider (2010 Reconsideration Denial)), fulfills that requirement; and (ii) a cause-or-contribute-significantly finding for air pollutants not specifically covered by the cause-or-contribute significantly finding the EPA made when listing the source category, and that in this case, the large amounts of CO2 emissions from power plants provide a compelling basis allowing the EPA to propose that finding. The EPA also solicits comment on another alternative, which is interpreting CAA section 111 so as not to require a specific endangerment finding or cause or contribute finding, but simply to require the EPA to establish a rational basis for regulating an air pollutant from a source category. In this case, the EPA's 2009 Endangerment Finding for GHGs and the 2010 denial of petitions to reconsider the Endangerment Finding, as well as the large amounts of CO2 emissions from power plants, provide that rational basis. Finally, as an alternative for the basis for a rational basis determination, the 2010 and 2011 Assessment Reports from the National Academies confirm the Endangerment Finding and the denial of petitions to reconsider.

Proposed Carbon Pollution Standard for New Power Plants, 77 *Fed. Reg.* at 22,411/col. 2 – 22,412/col. 1.

As noted, the EPA has solicited comment on this interpretation and the alternatives. After the EPA receives and reviews the comments, the EPA expects to finalize its interpretation.

b. Could the EPA be compelled to regulate GHG emissions from all sources currently regulated under the NSPS program as part of its periodic 8-year reviews?

The EPA does not believe that it is required to regulate all types of pollutants from all types of sources or source categories. In the recent periodic 8-year review NSPS rulemaking for the oil and gas industry, The EPA required reductions in volatile organic compounds or sulfur dioxide emissions from certain types of sources, but specifically did not require reductions in methane, which is a GHG. The EPA explained that it would continue to evaluate whether reductions of methane would be appropriate in light of the amount of methane emissions and other factors. *See* "Oil and Natural Gas Sector: New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Reviews: Final Rule," signed on April 17, 2011 (prepublication version available at http://www.epa.gov/airquality/oilandgas/pdfs/20120417finalrule.pdf). In another recent rulemaking, the EPA explained that "[w]e have historically declined to propose standards for a pollutant where it is emitting in low amounts or where we determined that a BDT [best demonstrated technology] analysis would result in no control. *National Lime Assoc'n v. EPA*, 627 F.2d at 426." "National Emissions Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry and Standards of Performance for Portland Cement Plants: Final Rule," 77 FR 54,970, 54,966/col. 3 - 54,997/col. 1. Additionally, the EPA does not believe that it can be compelled to regulate GHG emissions from all sources within a given source category. In the proposed Carbon Pollution Standard, the EPA listed examples of NSPS rulemakings in which the EPA did not regulate all types of sources in the source category. 77 FR 22426/cols. 1-2.

c. Please provide a list of all source categories currently regulated under the NSPS program.

Source Categories Currently Regulated under Section 111 (New Source Performance Standards)

NSPS	Subpart	Date of promulgation (FR citation)
Ammonium Sulfate Manufacture	PP	11/12/1980 (45FR74846)
Asphalt Concrete (Hot Mix Asphalt)	I	03/08/1974
Asphalt Processing and Roofing Manufacture	UU	08/06/1982 (47FR34147)
Auto/Light Duty Truck Surface Coating	MM	12/24/1980 (45FR85410)
Basic Oxygen Process Furnaces	N	03/08/1974 (39FR9318)
Basic Process Steelmaking Facilities (Integrated Steel Plants)	Na	01/02/1986 (51FR161)
Beverage Can Surface Coating	WW	08/25/1983 (48FR38728)
Bulk Gasoline Terminals	XX	08/18/1983 (48FR37578)
Calciners and Dryers in Mineral Industries	UUU	09/28/1992 (57FR44496)
Coal Prep Plants	Y	01/15/1976 (41FR2234)
Electric Utility Steam Generating Units[1]	Da	06/11/1979 (44FR33581)

[1] Subpart D was superseded by subpart Da.

NSPS	Subpart	Date of promulgation (FR citation)
Ferroalloy Production Facilities	Z	05/04/1976 (41FR18501)
Flexible Vinyl/Urethane Coating and Printing	FFF	06/29/1984 (49FR26885)
Fossil-Fuel Fired Steam Generators	D	12/12/1971
Glass Manufacturing	CC	10/07/1980 (45FR66742)
Grain Elevators	DD	08/03/1978 (43FR34347)
Graphic Arts Industry/Publication Rotogravure Printing	QQ	11/08/1982 (47FR50644)
Industrial, Commercial, Institutional Steam Generating Units	Db	11/25/1986 (51FR42768)
Kraft Pulp Mills	BB	02/23/1978 (43FR7568)
Large Appliances Surface Coating	SS	10/27/1982 (47FR47778)
Lead Acid Batteries	KK	04/16/1982 (47FR16564)
Lime Manufacturing	HH	03/07/1978
Magnetic Tape Coating Facilities	SSS	10/03/1988 (53FR38892)
Metal Coil Surface Coating	TT	11/01/1982 (47FR49606)
Metal Furniture Surface Coating	EE	10/29/1982 (47FR49278)
Metallic Mineral Processing Plants	LL	02/21/1984 (49FR6458)
Municipal Solid Waste Landfills	WWW	03/12/1996 (60FR9905)
New Residential Wood Heaters	AAA	08/02/1985 (50FR31504)
Nitric Acid Plants	G	12/23/1971
Nonmetallic Mineral Processing Plants	OOO	08/01/1985 (50FR31328)
Onshore Natural Gas Processing Plants—Equipment Leaks	KKK	06/24/1985 (50FR26122)
Onshore Natural Gas Processing: SO 2 Emissions	LLL	10/01/1985 (50FR40158)
Petroleum Dry Cleaners	JJJ	09/21/1984 (49FR37331)
Petroleum Refineries	J	03/08/1974 (39FR9308)
Petroleum Refineries	Ja	06/24/2008 (73FR35867)
Phosphate Fertilizers—Diammonium Phosphate Plants	V	08/06/1975 (40FR33155)
Phosphate Fertilizers—Granular Triple Superphosphate Storage Facilities	X	08/06/1975 (40FR33156)
Phosphate Fertilizers—Superphosphoric Acid Plants	U	08/06/1975 (40FR33155)
Phosphate Fertilizers—Triple Superphosphate Plants	W	08/06/1975 (40FR33156)
Phosphate Fertilizers—Wet-Process Phosphoric Acid Plants	T	08/06/1975 (40FR33154)
Phosphate Rock Plants	NN	04/16/1982 (47FR16589)
Polymeric Coating of Supporting Substrates	VVV	09/11/1989 (54FR37551)
Polymers Manufacturing Industry	DDD	12/11/1990 (55FR51035)
Portland Cement	F	12/23/1971 (36FR24877)
Pressure Sensitive Tape and Label Surface Coating Operations	RR	10/18/1983 (48FR48375)
Primary Aluminum Reduction Plants	S	01/26/1976 (41FR3826)
Primary Copper Smelters	P	01/15/1976 (41FR2338)
Primary Lead Smelters	R	01/15/1976 (41FR2340)

NSPS	Subpart	Date of promulgation (FR citation)
Primary Zinc Smelters	Q	01/15/1976 (41FR2340)
Refineries: Equipment Leaks	GGG	05/30/1984 (49FR22606)
Refineries: Wastewater	QQQ	11/23/1988 (53FR47623)
Rubber Tire Manufacturing	BBB	09/15/1987 (52FR34874)
Secondary Brass and Bronze Production Plants	M	03/08/1974 (39FR9318)
Secondary Lead Smelters	L	03/08/1974 (39FR9317)
Small Industrial, Commercial, Institutional Steam Generating Units	Dc	09/12/1990 (55FR37674)
SOCMI Air Ox Unit Processes	III	06/29/1990 (55FR 26922)
SOCMI Distillation	NNN	06/29/1990 (55FR 26942)
SOCMI Equipment Leaks	VV	01/18/1983 (48FR48335)
SOCMI Reactor Processes	RRR	08/31/1993 (58FR45962)
Stationary Combustion Turbines	KKKK	06/06/2006 (71FR38497)
Stationary Compression Ignition Internal Combustion Engines	IIII	7/11/2006 (71FR39172)
Stationary Gas Turbines	GG	09/10/1979 (44FR 52798)
Stationary Spark Ignition Internal Combustion Engines	JJJJ	01/18/2008 (73FR 3591)
Steel Plants: Electric Arc Furnaces	AA	09/23/1975 (40FR43850)
Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels	AAa	10/31/1984 (49FR43845)
Sulfuric Acid Plants	H	12/23/1971 (36FR24877)
Surface Coating of Plastic Parts for Business Machines	TTT	01/29/1988 (53FR2676)
Synthetic Fibers	HHH	04/05/1984 (49FR13651)
Volatile Organic Liquid Storage Vessels[2]	Ka	04/04/1980 (45FR23379)
Volatile Organic Liquid Storage Vessels (incl. Petroleum Liquid Storage Vessels)	Kb	04/08/1987 (52FR11429)
Wool Fiberglass Insulation Manufacturing Plants	PPP	02/25/1985 (50FR7699)

2. While the EPA may take the position that it need not make new GHG endangerment findings for EGUs, the proposed rule discusses an alternative interpretation. As an alternative, the EPA is considering whether Clean Air Act section 111 should be interpreted to require new endangerment and significant contribution findings for GHG emissions from EGUs. In connection with this alternative, the EPA proposes to find that CO_2 emissions from fossil fuel-fired EGUs cause-or-contribute significantly to GHG pollution.

a. Please clarify whether this proposed finding applies to existing units, or whether the finding applies to new units, or to both new and existing units.

[2] Subpart K was superseded by subpart Ka.

CAA §111(b)(1)(A) provides that the Administrator must "publish (and from time to time … revise) a list of categories of stationary sources. He shall include a category of sources in such list if in his judgment it causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare." Under this provision, the Administrator must exercise judgment concerning the "category of sources." This reference to "category of sources" includes new and existing sources. These provisions make clear that the EPA's proposed alternative covers all sources in the source category.

b. Please clarify whether all units regulated as a result of the previous non-GHG endangerment findings are covered by this proposed finding. If not, which units are exempted and could they be subject to litigation seeking to compel them to be regulated?

Although the EPA's proposed alternative covers all sources in the source category, this does not mean all sources "could…be subject to litigation seeking to compel them to be regulated." As we stated in the proposal, "In applying section 111 over the past several decades, there have been a number of rulemakings in which the EPA has promulgated new source performance standards that do not cover all sources within the relevant source category that newly commence construction or modification." We went on to list examples. 77 FR at 22,426/cols.1-2.

3. The EPA proposes to combine coal-fired power plants and natural gas-fired power plants into a newly created subpart TTTT category "…for purposes of GHG emissions." The EPA states: "we recognize that today's proposed approach of combining the Da category and a portion of the KKKK category, and applying as the standard of performance the rate that natural gas-fired EGUs can meet, represents a departure from prior agency practice."

a. What precedent is there for combining NSPS source categories and setting a standard that only a portion of the sources in one of the previous categories can meet?

b. What is the basis for abandoning the long standing practice, as provided for in section 111(b) of the Clean Air Act, of distinguishing among classes, sizes and types within categories of new sources, including recognizing fundamental differences among fuels?

The EPA has no generalized "long-standing practice" of establishing subcategories within each category of new sources subject to standards under section 111. Where the Administrator determines it is appropriate based on the characteristics of a particular industrial source category, she considers the need and desirability of subcategorizing among sources within that category to account for significant differences that might affect type, stringency, and available methods of complying with emission standards. In actual practice among the 74 categories of industrial sources subject to standards under section 111(b), the establishment of separate standards for subcategories of sources is an exception to the general practice of applying a single standard to all affected sources within the category.

In addition to requiring periodic review of standards, section 111 provides legal authority for creating and revising the list of source categories. Combining categories is a form of revising the list of categories. There are several reasons that it is appropriate to combine the subpart Da category (boilers and certain other technologies) and the stationary combined cycle component of the subpart KKKK category for purposes of regulating GHGs. First, all these units serve the same function – generating electricity to serve baseload or intermediate load demand. Second, all newly constructed sources have

options in selecting the design of a new unit, so companies could readily comply by choosing to construct a natural gas combined cycle unit. Third, the proposed standard is consistent with industry trends. Economic models forecast no construction of coal-fired generation without CCS through the analysis period, which extends until 2020 (when the standard will be revisited).

4. The EPA maintains that "[n]ew coal-fired power plants with CCS are being permitted and built today," and that "new coal-fired power plants can install CCS technology" and thereby meet the emissions limits in the proposed rule. However, the administration itself issued a report in August 2010 entitled "Report of the Interagency Task Force on Carbon Capture and Storage," that identifies numerous barriers to the deployment of CCS, including the availability of suitably large, secure geologic reservoirs, the cost of CO_2 capture, transport and storage, long-term liability of sequestration sites, the need for a legal/regulatory framework, and public awareness and support. The EPA was not only a participant in this Interagency Task Force, but a co-chair, and has since expressly supported the Task Force's conclusion that there is "considerable uncertainty" associated with commercial deployment of CCS.

a. Please outline in detail all steps that would be required for a new coal-fired power plant to gain approval and install CCS, including site identification, permitting, community education, technology development, design, financing, liability and other risk management, construction, and ongoing monitoring and reporting.

Carbon capture and sequestration (CCS) is a three-step process that includes capture and compression of CO_2, transport of the captured CO_2 (usually in pipelines), and storage of that CO_2 in geologic formations, such as deep saline formations, oil and gas reservoirs, and un-mineable coal seams. Successful deployment of a CCS project will depend upon the sequestration site being appropriately sited, constructed, tested, monitored, funded, and closed. There are legal authorities that govern the capture, transportation, and storage of CO_2, and the applicability of particular authorities will depend on the specifics of the particular project. Certain laws may apply to a particular phase (i.e. capture, transport, or storage) of a CCS project. The Interagency Task Force on Carbon Capture and Storage noted that these laws may include the Clean Air Act, Hazardous Liquid Pipeline Act of 1979, Hazardous Materials Transportation Act, Safe Drinking Water Act, and Comprehensive Environmental Response, Compensation, and Liability Act. Other laws may apply to multiple phases of a CCS project and could include the National Environmental Policy Act, Resource Conservation and Recovery Act, Endangered Species Act, and National Historic Preservation Act. For more information on key provisions of current environmental, natural resources, and other laws that may apply to CCS, see Section IV.B of the Report of the Interagency Task Force on Carbon Capture and Storage.

b. For each step, please explain whether existing technologies and Federal, State, local and tribal government programs are sufficient to complete the step in a timely and cost-effective manner, and how much time would be required for each step.

The legal authorities noted above already exist today. The Task Force noted that CCS projects can proceed under these existing laws, consistent with deploying commercial demonstration projects by 2016 and widespread cost effective deployment by 2020. The time to complete the steps for deploying a CCS project will vary from project to project. As with any new power plant or industrial project, financing and public engagement are important to maintain throughout the life of a CCS project. The

timing of other aspects will be unique to individual CCS projects, such as site characterization, monitoring, and post-injection site care associated with geologic sequestration. Variables that influence timing of different geologic sequestration project phases include, but are not limited to, geologic setting, assessed capacity, injection rates and volumes, and injection duration.

The EPA notes that the proposed Carbon Pollution Standard for new power plants includes a 30-year averaging compliance alternative that provides flexibilities for New Power Plants to phase in CCS. This compliance alternative allows owners/operators to install CCS when the unit is first constructed but also provides the operational flexibility that may be necessary to optimize the performance and to have additional time to address any startup challenges related to issues such as business arrangements related to the sale or storage of the captured CO_2.

5. The August 2010 report also expressly stated: "...early CCS projects face economic challenges related to climate policy uncertainty, first-of-a-kind technology risks, and the current high cost of CCS relative to other technologies. Administration analyses of proposed climate change legislation suggest that CCS technologies will not be widely deployed in the next two decades absent financial incentives that supplement projected carbon prices. In addition to the challenges associated with cost, these projects will need to meet regulatory requirements that are currently under development. Long-standing regulatory programs are being adapted to meet the circumstances of CCS, but limited experience and institutional capacity at the Federal and State level may hinder implementation of CCS-specific requirements. Key legal issues, such as long-term liability and property rights, also need resolution."

a. How has the EPA addressed each of the concerns and barriers to deployment of CCS identified in the August 2010 report?

In 2010, the Interagency Task Force on Carbon Capture and Storage was charged with "proposing a plan to overcome the barriers to the widespread, cost-effective deployment of CCS within ten years, with a goal of bringing five to ten commercial demonstration projects online by 2016." As part of its work, the Task Force prepared a report that summarized the state of CCS and identified challenges that were identified as potential barriers to widespread deployment of CCS by 2020. The Task Force's timetable for CCS deployment focused on "widespread" deployment, including retrofits on existing units. The EPA notes that the Carbon Pollution Standard for New Power Plants standards do not envision or require widespread deployment of CCS prior to 2020, the ten-year mark in the Task Force report, in part because the proposed standards apply only to new power plants.

The EPA is moving forward with development of the regulatory requirements that were identified in the Task Force report. In addition to the proposed Carbon Pollution Standard for New Power Plants, which is a component of a supportive national policy framework for CCS, the EPA recently finalized two rules that aim to protect drinking water and track the amount of CO_2 that is sequestered from facilities that carry out geologic sequestration. The Underground Injection Control Class VI rule sets requirements to ensure that geologic sequestration wells are appropriately sited, constructed, tested, monitored, and closed.[3] Subpart

[3] The Safe Drinking Water Act established the UIC Program to set minimum federal requirements for injection wells that discharge hazardous and non-hazardous fluids below, above, or into USDWs. For more information, please visit http://water.epa.gov/type/groundwater/uic/wells_sequestration.cfm.

RR of the Greenhouse Gas Reporting Program provides requirements for quantifying the amount of CO_2 sequestered by these facilities.[4] In addition, the EPA recently proposed a rule that would conditionally exclude CO_2 streams from the definition of hazardous waste under the Resource Conservation and Recovery Act in cases where these streams are being injected for purposes of geologic sequestration.[5]

With respect to liability and property rights, the Task Force found that existing mechanisms related to long-term liability could be adequate to facilitate the initial commercial-scale CCS projects, and projects have been proceeding under existing laws. With respect to property rights, the Task Force noted that States are best positioned to address pore space issues on private lands. In fact, several states have taken action to clarify or to codify the rules relating to CO_2 storage property rights.

b. Please provide the analyses that demonstrate that the EPA has considered and provided a means for overcoming each of these concerns?

- Federal Requirements under the Underground Injection Control (UIC) Program for Carbon Dioxide (CO2) Geologic Sequestration (GS) Wells, Final Rule, 75 FR 77230 (Dec. 10, 2010).

- Mandatory Reporting of Greenhouse Gases: Injection and Geologic Sequestration of Carbon Dioxide, Final Rule, 75 FR 75060 (Dec. 1, 2010).

- Hazardous Waste Management System: Identification and Listing of Hazardous Waste: Carbon Dioxide (CO2) Streams in Geologic Sequestration Activities, Proposed Rule, 76 FR 48073 (Aug. 8, 2011).

6. Section 111 of the Clean Air Act requires that performance standards for new stationary sources listed under the NSPS program be achievable. Prior to the promulgation of the proposed rule, the EPA stated in its October 2010 White Paper on "Available and Emerging Technologies for Reducing Greenhouse Gas for Coal-Fired Electric Generating Units" that "full-scale carbon separation and capture have not yet been installed and fully integrated at an EGU".

a. Did the EPA consider setting separate standards for new coal-fired power plants that could be achieved by sources using non-CCS technologies?

i. If yes, what standards were considered?

ii. If no, why not?

In developing this proposed rule, the EPA held four listening sessions in February and March 2011 to obtain information and input from key stakeholders and the public. Each of the four sessions had a particular target audience: the electric power industry, environmental and environmental justice organizations, states and tribes, and coalition groups. From the listening sessions and written submissions, the EPA received a wide range of comments and ideas for this proposed rule. The EPA considered all of these comments and suggestions in the development of the proposed Carbon Pollution Standard for New Power Plants. These suggestions included consideration of standards based on the

[4] For more information, please visit http://www.epa.gov/climatechange/emissions/subpart/rr.html.
[5] For more information, please visit http://www.epa.gov/osw/nonhaz/industrial/geo-sequester/index.htm

most efficient available boiler designs (i.e., supercritical PC or CFB designs). The EPA is not aware of any available non-CCS add-on technologies that can be used to reduce carbon pollution from coal-fired power plants.

b. At this time, are any coal-fired power plants in commercial operation equipped with full-scale CCS systems that would be needed by a new coal-fired power plant to comply with the proposed rule?

The EPA is not aware of any currently operating coal-fired power plants that are equipped with full-scale CCS systems of the type that would be needed by a new power plant to comply with the proposed rule. Based on available information, as discussed in the preamble to the proposed rule, the EPA is confident that these systems are available and feasible to allow compliance with the proposed rule. However, prior to this proposed rule, there has been little motivation for a coal-fired power plant to install a large-scale version of the available carbon capture equipment.

i. If yes, please identify each plant and describe the CCS technology that has been installed that could comply with the proposed rule.

The following is a brief summary of currently operating or planned CO_2 capture or storage systems, including, in some cases, components necessary for coal-based power plant CCS applications, which would enable a plant to meet the proposed standards.

- AES's coal-fired Warrior Run (Cumberland, MD) and Shady Point (Panama, OK) power plants are equipped with amine scrubbers developed by ABB/Lummus. They were designed to process a relatively small percentage of each plant's flue gas. At Warrior Run, approximately 110,000 tonnes of CO_2 per year are captured, whereas at Shady Point 66,000 tonnes of CO_2 per year are captured. The CO_2 from both plants is subsequently used in the food processing industry.

- At the Searles Valley Minerals soda ash plant in Trona, CA, approximately 270,000 tonnes of CO_2 per year are captured from the flue gas of a coal power plant via amine scrubbing and used for the carbonation of brine in the process of producing soda ash. A pre-combustion Rectisol® system is used for CO_2 capture at the Dakota Gasification Company's synthetic natural gas production plant located in North Dakota, which is designed to remove approximately 1.6 million tonnes of CO_2 per year from the synthesis gas. The CO_2 is purified, transported via a 200-mile pipeline, and injected into the Weyburn oilfield in Saskatchewan, Canada.

- In September 2009, American Electric Power Co. (AEP) began a pilot-scale CCS demonstration at its Mountaineer Plant in New Haven, WV. The Mountaineer Plant is a 1,300 MWe coal-fired unit that was retrofitted with Alstom's patented chilled ammonia CO_2 capture technology on a 20 MWe portion, or ''slipstream'', of the plant's exhaust flue gas. In May 2011, Alstom Power announced the successful operation of the chilled-ammonia CCS validation project. The AEP–Alstom project, the world's first facility to both capture and store CO_2 from a coal-fired power plant, represents a successful scale-up of ten times the size of previous field pilots (e.g., at We Energies Pleasant Prairie). The demonstration achieved capture rates from 75 percent (design value) to as high as 90 percent, produced CO_2 at purity of greater than 99 percent, with energy penalties within a few percent of predictions. The facility reported robust steady-state operation during all modes of power plant operation including load changes, and saw an availability of the CCS system of greater than 90 percent.

- AEP, with assistance from the DOE, had planned to expand the slipstream demonstration to a commercial scale, fully integrated demonstration at the Mountaineer facility. The commercial scale system was designed to capture at least 90 percent of the CO_2 from 235 MW of the plant's 1,300 MW total capacity. Plans were for the project to be completed in four phases, with the system to begin commercial operation in 2015. However, in July 2011, AEP announced that it is terminating its cooperative agreement with the DOE and placing its plans to advance CO_2 capture and storage technology to commercial scale on hold, citing the current uncertain status of U.S. climate policy and the continued weak economy as contributors to the decision.

- Oxy-combustion of coal is being demonstrated in a 10 MWe facility in Germany. The Vattenfall plant in eastern Germany (Schwarze Pumpe) has been operating since September 2008. It is designed to capture 70,000 tonnes of CO_2 per year.

- In June 2011, Mitsubishi Heavy Industries, an equipment manufacturer, announced the successful launch of operations at a 25 MW coal-fired carbon capture facility at Southern Company's Alabama Power Plant Barry. The demonstration is planned to capture approximately 150,000 tonnes of CO_2 annually at a CO_2 capture rate of over 90 percent. The captured CO_2 will be permanently stored underground in a deep saline geologic formation.

- Southern Company has begun construction of Mississippi Power Plant Ratcliffe (formerly the Kemper County IGCC Project). Plant Ratcliffe is a 582 MW IGCC plant that will utilize local Mississippi lignite and include precombustion carbon capture to reduce CO_2 emissions by 65 percent. Operation is expected to begin in 2014. The CO_2 captured from Plant Ratcliffe will be used for enhanced oil recovery (EOR) in the Heidelberg Oil Fields in Jasper County, MS.

- The Texas Clean Energy Project, a 400 MW IGCC facility located near Odessa, TX will capture 90 percent of its CO_2, which is approximately 3 million tonnes annually. The captured CO_2 will be used for EOR in the West Texas Permian Basin. (Additionally, the plant will produce urea and smaller quantities of commercial-grade sulfuric acid, argon, and inert slag, all of which will also be marketed.) Construction is expected to begin in 2012.

ii. Please identify suppliers and vendors that design and install commercial scale CCS technology, and provide any available estimates of the cost of such installation and all associated costs.

While the EPA cannot guarantee that the following list includes all suppliers and vendors that design and install commercial scale CCS technology, the EPA is aware of some companies that now claim to offer carbon capture technology: Alstom, Fluor, Babcock & Wilcox (B&W), Mitsubishi Heavy Industries (MHI), BASF.

The EPA does not have company-specific estimates for installation and all associated costs of carbon capture technology. It has, instead, relied on cost estimates from studies conducted by the Department of Energy (DOE) and other sources.

c. If there are not coal-fired power plants in commercial operation equipped with full-scale CCS systems that would meet the standards in the proposed rule, what is the basis for the EPA's

assertion that a new coal-fired power plant can install CCS technology to comply with the proposed rule.

The EPA is confident that CCS technology is available and feasible to allow compliance with the proposed rule. The Pacific Northwest National Laboratory (PNNL) recently performed a study for the DOE entitled "An Assessment of the Commercial Availability of Carbon Dioxide Capture and Storage Technologies as of June 2009" [the final report of the study is available on-line at http://www.pnl.gov/main/publications/external/technical_reports/PNNL-18520.pdf]. The first sentence from the Summary of the study is this: "Carbon dioxide capture and storage (CCS) technologies are commercially available today." The report then details the many years of experience in the demonstration and operation of the various CCS component systems.

The EPA also feels confident in asserting that a new coal-fired power plant can install CCS technology to comply with the proposed rule because large scale projects are moving forward. As mentioned earlier, Southern Company has already begun construction of Mississippi Power's Plant Ratcliffe, a 582 MW IGCC plant that will utilize local Mississippi lignite and include pre-combustion carbon capture to reduce CO_2 emissions by 65 percent. Operation is expected to begin in 2014. The CO_2 captured from Plant Ratcliffe will be used for enhanced oil recovery (EOR) in the Heidelberg Oil Fields in Jasper County, MS.

The Texas Clean Energy Project, a 400 MW IGCC facility located near Odessa, TX will capture 90 percent of its CO_2, which is approximately 3 million tonnes annually. The captured CO_2 will be used for EOR in the West Texas Permian Basin. (Additionally, the plant will produce urea and smaller quantities of commercial-grade sulfuric acid, argon, and inert slag, all of which will also be marketed.) Construction is expected to begin in 2012.

7. Section 111 of the Clean Air Act also provides that "...nothing in this section shall be construed to require, or to authorize the Administrator to require, any new or modified source to install and operate any particular technological system of continuous emissions reduction to comply with any new source standard of performance."

a. Given that natural gas combined cycle (NGCC) technology is the only demonstrated viable compliance option for meeting the EPA's proposed new plant standards, how is this approach consistent with Congress's specific direction that the EPA is not authorized to require a source to install any particular technology system?

The requirement of section 111 is for the EPA to develop a standard of performance reflecting what it determines to be the best system of emission reduction considering the cost of achieving such reductions, and non-air quality health and environmental impacts and energy requirements. Nothing in the EPA's proposed rule would require sources to install and operate NGCC technology, and sources remain free to explore and develop alternative approaches to comply with the standard.

8. Section 111 of the Clean Air Act also requires that the EPA take into account costs in setting NSPS performance standards.

a. In the development of the proposed rule, did the EPA consider less "costly" standards for coal-fired power plants, such as efficiency standards and setting as the performance standard the rate that can be achieved by the best performing existing coal-fired power plants?

i. If yes, why did the EPA decide not to propose the less costly measures?

ii. If the EPA did not consider less costly measures, why not?

The regulatory impact analysis for the EPA's proposed Carbon Pollution Standard for New Power Plants estimates that the proposed standards would not add any cost relative to the projected base case because no new coal plants without subsidized CCS are projected to be built in the absence of the rule, due to economic conditions. Thus a standard of performance based on the best performing coal-fired power plant would not be "less costly" than the performance standard in the EPA's proposal.
The EPA did consider setting separate GHG standards for new coal-fired and new gas-fired electrical generating units, but did not propose that option. Instead, the EPA proposed to combine coal-fired units and natural gas combined cycle units into one category for purposes of regulating GHGs. The reasons are presented on pp. 22410-22411 of the April 13, 2012, Federal Register proposal notice:

For three principal reasons, it is appropriate for the EPA to combine the Da category and the stationary combined cycle component of the KKKK category at this time for purposes of regulating GHGs. First, all of the plants covered by the new combined category (including fossil fuel-fired boilers, IGCC units and NGCC units) perform the same essential function, which is to provide generation to serve baseload or intermediate load demand. It is sensible to treat as part of the same category units that generate baseload or intermediate load electricity, regardless of their design or fossil fuel type.

Second, all newly constructed sources have options in selecting their design (although it is true that natural gas-fired plants are inherently lower emitting with regard to CO_2 than coal-fired plants). As a result, prospective owners and operators of new sources could readily comply with the proposed emission standards by choosing to construct a NGCC unit. These two factors provide sufficient legal rationale for the EPA to combine the Da category and the combined cycle component of the KKKK category for purposes of establishing a standard of performance for GHG emissions.

The agency has previously combined one type of baseload and intermediate load combined cycle unit (IGCC, previously covered under Subpart GG) with Da units for the purposes of setting a standard [40 CFR 60.41Da(b), Feb. 28, 2005]. This action now similarly combines another type of baseload and intermediate load combined cycle unit (NGCC, previously covered under Subpart KKKK) with Subpart Da units for the purposes of setting a standard.

A third factor lends additional support. Combining the categories does not raise adverse policy concerns. On the basis of comments made during the listening sessions, we anticipate that some commenters may question whether combining the categories and applying the NGCC standard to all new plants within the combined category may limit construction of new coal-fired power plants, and thereby have a disruptive effect on the electric power industry, increase electricity prices and/or have adverse implications for energy diversity in new generation. We do not believe that this action would have those effects. As discussed below, and importantly, economic models forecast no new construction of coal-fired generation without CCS through the analysis period, which extends until 2020 (when the standard will be revisited). Accordingly, economic conditions are expected to be the main driver precluding, or at least limiting, construction of coal-fired EGUs. Because of those economic conditions, there is a strong independent movement of power plants serving baseload generation toward NGCC. In light of that movement, it is appropriate for the EPA to focus on this technology in developing the standard, rather than subcategorizing and providing a separate standard for new coal units. See Portland Cement Ass'n

vs. EPA, 665 F.3d 177, 190 (D.C. Cir. 2011) (affirming the EPA's decision not to subcategorize in part because of "the universal movement in the portland cement industry towards adoption of preheater/precalciner technology").

Notwithstanding these points, we recognize the possibility that a limited amount of new coal-fired construction may nevertheless occur. Today's action would not foreclose construction of new coal-fired EGUs. Rather, the new coal-fired EGUs that may be expected to be built in the foreseeable future (and for reasons stated above, this is anticipated to be a relatively small number) may install CCS control equipment (if not at the time of construction, then not long thereafter) By doing so, they may achieve the same average CO_2 emission rate (at least over time) as a natural gas-fired combined cycle unit. It is reasonable to expect that some coal-fired power plants may be able to implement CCS at the present time, and thereby achieve the 1,000 lb CO_2/MWh standard immediately. As noted elsewhere, CCS has been demonstrated to be technologically achievable, and, even though it is costly, there are some State and Federal programs that can make CCS more affordable. Several power companies have announced plans to incorporate CCS at six already permitted coal-fired EGU construction projects in this country (as we discuss below in section V.B., concerning transitional sources). Programs exist that provide some funding for CCS through pilot or other demonstration programs, and we expect those to continue. In addition, we reasonably expect the costs of CCS to decline over time. As discussed below, we are not proposing that CCS does or does not qualify as the "best system of emission reduction" that "has been adequately demonstrated" for new coal-fired power plants. Rather, the feasibility of CCS and its availability for the limited amount of new coal-fired construction that may be expected means that this action to combine the categories and establish the NSPS at the proposed 1,000 lb CO_2/MWh emission limit will not have notable adverse effects on new coal-fired construction or, therefore, on the electric utility industry, electricity prices, or energy diversity. We welcome public comments on this discussion.

b. Has the EPA or any other Federal agency estimated the cost of CCS technology and associated capital and operation costs that a new coal fired power plant would need to employ to meet the proposed rule's standards?

i. If yes, what is the estimated cost, or range of costs, for a new coal fired power plant to comply with the rule? Please provide all cost estimates prepared by the EPA or provided to the EPA by other Federal agencies or third parties.

ii. If no, on what basis has the EPA determined that the standards are affordable for new power plants?

Both the EPA and the DOE have developed cost estimates for CCS technology. Recent cost estimates include the values listed in the EPA's version of the integrated planning model and the DOE's Cost and Performance Baseline for Fossil Energy Plants. According to the DOE reports, the capital costs of an integrated gasification combined cycle facility with 90 percent pre-combustion carbon capture and storage (CCS) would be increased by approximately 35 percent compared to a similar facility without CCS. The corresponding increase in the levelized cost of electricity would be increased by approximately 40 percent, prior to accounting for the economic benefits of enhanced oil recovery. The use of the captured carbon dioxide in enhanced oil recovery can significantly reduce the cost of electricity. The increase in costs of post combustion capture and storage technologies are approximately double that of pre-combustion systems. The EPA's version of the integrated planning model has similar costs to the DOE reports. According to the to the DOE report Cost and Performance of PC and IGCC Plants for a Range of Carbon Dioxide Capture, the cost increase required to implement partial capture

that would be required to comply with the proposed rule would be approximately half of the full capture costs.

9. The EPA states that "even though [CCS] is costly, there are some State and Federal programs that can make CCS more affordable." What are the "State and Federal Programs that can make CCS more affordable?

a. Please list each such program, how much funding is available, and the eligibility requirements for receipt of such funding.

b. What is the source for such funding and is such funding likely to continue to be available in the current fiscal climate.

While the EPA has not done a comprehensive review of funding available for CCS, many of the CCS projects currently under development have received a combination of federal and state funds. Federal funding sources have included: grants through DOE under the Clean Coal Power Initiative, loan guarantees through DOE, and tax credits for CCS projects. States and localities have developed a number of funding credits including tax credits as well as more innovative financing methods. Existing funding programs could help a number of projects currently under development off the ground. This, in turn, could help reduce the cost of future projects. The agency has not tried to project what future funding mechanisms may exist.

10. The EPA also maintains that even if a new coal-fired power plant cannot presently install control technology, there continues to be a pathway for use of coal to generate electricity under a 30-year averaging compliance option.

a. Has the EPA considered whether a source would be able to obtain financing, given the uncertainty of being able to comply in the future?

b. What penalties could be imposed on sources that commit to installing CCS under this 30 year option but cannot meet the more stringent limits in the later years?

c. Could such a new coal-fired power plant be forced to shut down?

Installing CCS after 10 years is only one compliance path for a new coal-fired power plant. CCS could be installed immediately. There are several projects currently under development that are designed to meet limits significantly below the standard. Even under this scenario, the 30-year averaging standard could provide significant flexibility that could help reduce financing uncertainty. For instance, such a project could be dependent upon a third party to develop a pipeline to move the captured CO_2 to a sequestration site. Uncertainty about when the pipeline would be completed could lead to uncertainty about whether the plant could be operated on day one. The 30-year compliance option would give the unit the option to operate immediately, even if the pipeline wasn't completed.

Different project developers are likely to assess the risks of such a project differently, but the EPA believes that some might find the thirty year averaging option appealing. It is for this reason that the EPA is taking comment on the compliance alternative. Whatever pathway a developer takes, the EPA believes that the 1000 lbs CO_2/MWh standard is a technologically achievable standard. If a source did not achieve the standard, it would be subject to penalties under the Clean Air Act; however, the EPA

believes it is extremely unlikely a company would move forward without certainty they could meet the standard.

11. The EPA previously stated in its August 3, 2011, response to the Committee's May 18, 2011, letter that "promulgation of a GHG NSPS for a source category such as EGUs under section 111(b) obligates the EPA to issue a guideline for state regulation of existing sources in the same source category." What is the EPA's current timeline for issuance of such standards for existing plants?

Although promulgation of a GHG NSPS for a source category such as EGUs under section 111(b) does obligate the EPA to issue a guideline for state regulation of existing sources in the same source category, the Act's text does not specify a deadline. The EPA does not have a timeline for issuing an existing source guideline for state regulation of greenhouse gases from fossil-fueled EGUs.

12. In the proposed rule, the EPA states that it does not have a sufficient base of information to develop a proposal for the affected sources that may be expected to take actions that would constitute "modifications" under the EPA's NSPS program. The proposed rule states that the EPA may issue proposed standards of performance for modified existing power plants in the future.

a. What are the EPA's plans for developing sufficient information regarding "modifications"?

b. What is the EPA's timeline for the consideration and issuance of such standards?

The EPA does not have a timeline for proposing such standards. The EPA's plans are described at 77 Fed. Reg. 22421 of the April 13, 2012, Federal Register:

The EPA is soliciting comment on the types of sources that may be expected to undertake modifications, the types of modifications, the types of control measures, and all other aspects of this issue. This solicitation of comment is in the nature of an advance notice of proposed rulemaking. If we receive sufficient additional information, we may issue a proposal for modifications in the future. However, to reiterate, we are not proposing any standards of performance for these modifications at this time. Accordingly, the EPA does not expect to promulgate any standards of performance for modifications when it takes final action on this rulemaking.

13. The EPA discusses in the proposed rule the exemption for existing EGUs that undertake modifications to comply with other EPA rules. The proposed rule indicates that this exemption for pollution control projects is similar to the exemption in the EPA's NSR regulation that was vacated by the DC Circuit Court in 2005.

a. Has the EPA considered whether the exemption in the proposed rule for pollution control projects could be vulnerable to a similar legal challenge?

The proposed rule does not exempt pollution control projects. Instead, the proposed rule notes that the current NSPS regulations exempt pollution control projects, under 40 CFR 60.14(e)(5). As to whether this exemption in the current NSPS regulations may be subject to a similar legal challenge as in the EPA's NSR regulation that was vacated by the DC Circuit Court in 2005, in the proposed rule, the EPA

stated, we are soliciting comment on whether this exemption from the definition of "modification" for pollution control projects, under 40 CFR 60.14(e)(5), continues to be valid or not, and what course of action, if any, would be appropriate for the EPA to take.

77 *Fed. Reg.* at 22,421/cols.2-3. The EPA looks forward to receiving and reviewing comment on this issue.

b. The proposed rule states that "the Court's vacatur of the NSR regulatory provision may call into question the continued validity of the section 111 regulatory provision." If the exemption were successfully challenged, what are the potential cost implications for existing EGUs?

In the proposed rule, the EPA did not propose a standard for modifications. The potential cost implications for existing EGUs would depend on whether the EPA were to propose and promulgate such a standard, and what emissions limitations that standard would impose.

14. Can the EPA confirm that it will not require CCS technology for existing coal-fired power plants?

As noted above, the EPA does not have a plan or timetable for issuing guidelines for state regulation of GHGs from fossil-fueled EGUs. Although the recently proposed Carbon Pollution Standard for New Power Plants proposes a level of performance that future coal-fired power plants could not meet without CCS, there is no reason to assume that any hypothetical future section 111(d) guidelines should require the same level of performance as new source standards. The provisions of Section 111(d) requiring guidelines for existing sources in certain circumstances have important differences from the provisions for new source performance standards. Therefore, proposals for new source standards do not imply any particular stringency level for existing source guidelines.

15. The EPA stated in its August 3, 2011, response to the Committee's May 18, 2011, letter that once the agency sets GHG NSPS for new power plants, the agency is obligated to issue guidelines for existing power plants. Before deciding to propose standards for new plants that would trigger the obligation to regulate existing plants, did the EPA estimate the range of costs of imposing GHG standards on existing power plants?

a. If yes, what were those estimated costs. Please provide all draft and final cost estimates, analyses and briefing documents considered by the EPA

b. If not, what is the EPA's justification for initiating an action which triggers the obligation to issue standards for existing plants without considering the associated costs?

The EPA did not make its decision on whether to regulate GHGs from new fossil-fueled EGUs based on an assessment of costs of regulating GHGs from existing EGUs. The EPA has a legal obligation to consider whether GHG standards for new fossil-fueled power plants are warranted. The law does not condition that obligation on an assessment of the cost of any potential future guidelines for existing plants. Nonetheless, it is clear from information in the public domain that there are a variety of ways to reduce emissions from existing fossil-fueled power plants, and that costs will vary depending on the degree of emissions reduction and methods used. Section 111(d) authority for setting guidelines for existing sources is flexible and requires consideration of cost. Once the EPA has issued an emission guideline, states must then submit to the EPA a plan to establish and implement state standards for

existing sources that are consistent with the guideline. If the EPA approves the plan, the state can then implement it. Section 111(d) does not prescribe a timeframe for the submission or implementation of state plans. Further, as a matter of law, promulgation of final new source performance standards for a source category does not imply any particular level of stringency or level of cost for existing source guidelines for that source category.

16. The proposed rule refers specifically to anticipated modifications of existing facilities that would involve equipment changes to improve efficiency to meet the requirements of a future 111(d) rulemaking for existing sources.

a. To which future 111(d) rulemaking requiring efficiency improvements at existing sources does the preamble refer?

b. Has the EPA considered emissions guidelines under CAA section 111(d) that would include efficiency improvements?

In explaining the EPA's lack of sufficient information to propose GHG standards for EGU modifications, the preamble discusses categories of changes at existing fossil-fueled power plants that might or might not qualify as modifications. As part of a discussion of hypothetical types of changes that might occur at EGUs, the preamble mentions a scenario in which efficiency improvements are required by a hypothetical future section 111(d) guideline for state regulation of existing EGUs. As previously noted, the EPA does not have a plan or timetable for such a guideline.

17. The EPA stated in its August 3, 2011, response to the Committee's May 18, 2011, letter that "Administrator Jackson and Assistant Administrator Gina McCarthy have stated publicly that the agency has no intention of pursuing a cap-and-trade program for GHGs under the Clean Air Act. The agency reaffirms those statements here." At the same time, on its website that agency in March 2012 updated its "Cap & Trade Simulation" web page which includes a CO_2 program relating to power plants, including with a "Facilitators Guide" dated July 20, 2011.

a. If the EPA has no intention of pursuing a cap-and-trade program, what is the purpose of the CO_2 simulation program?

The Emissions Trading Simulation is an educational tool the EPA developed to help stakeholders understand how emission trading programs work. The simulation tool was first developed in 2001 to focus on SO_2 trading programs. In 2008, in response to requests from users, the EPA added a CO_2 component to the SO_2 simulation. The simulation tool has been used by a variety of stakeholders, including universities, businesses, emission marketing professionals, and government organizations – from around the world. Recently the EPA made the tool available to a broader group of stakeholders on the EPA website.

b. Please provide an estimate of the staff, materials, and vendor commitment employed to develop the "Cap & Trade Simulation" web page.

The EPA expended approximately 12 hours of staff time and $1,610 of contract funds to develop and deploy the Emission Trading Simulation web page.

c. Is the agency developing any other cap-and-trade documentation, software or other materials relating to CO_2 and cap-and-trade programs? If yes, what activities are being undertaken? Please describe the activities being undertaken, and the staff and resources being used for these activities.

The agency is not planning to make any updates or changes to the documentation, software, or other materials relating to the CO2 component of the Cap and Trade Simulation web page.

d. Does the representation in the August 3, 2011, letter that the agency "has no intention of pursuing a cap-and-trade program for GHGs under the Clean Air Act" remain accurate?

Yes.

18. Please list all the source categories regulated under Clean Air Act Section 111 for which the EPA has considered promulgation of GHG standards.

a. For which of these source categories is the EPA currently considering petitions or requests to propose GHG standards.

The agency has been asked or petitioned to develop New Source Performance Standards that address greenhouse gases (GHGs) for the following NSPS source categories:

- Power Plants
- Refineries
- Landfills
- Pulp and Paper
- Oil and Natural Gas Facilities
- Nitric Acid Facilities
- Portland Cement

Of these source categories, the agency proposed the Carbon Pollution Standard for New Power Plants on April 13, 2012. The public comment period closed on June 25, 2012. The agency will carefully evaluate all comments and other information received before issuing a final rule. In addition, for both Portland Cement and Oil and Natural Gas, the Agency indicated that it was continuing to evaluate potential regulation of GHGs in response to a petition requesting GHG standards. The Refinery NSPS is the subject of litigation that is currently stayed; a schedule for action on the rule is the subject of confidential settlement discussions. The agency also has pending petitions requesting addition of coal mines and Concentrated Animal Feeding Operations to the list of NSPS source categories. The agency will determine whether it is appropriate to list these source categories before considering whether to establish standards for GHGs or other pollutants for them.

b. Are there any source categories under the NSPS program for which the EPA can confirm it will not propose GHG standards?

The agency is continuing to collect and evaluate information such as the significance of emissions contributions and the availability of cost effective systems for emissions reduction in order to determine whether and to what extent standards for GHG emissions should be established. Hence, the agency

cannot at this time confirm that it will not propose GHG standards for existing NSPS source categories.

c. What is the EPA's current schedule for the proposal of standards addressing each source category.

As the agency is continuing to collect and evaluate information to consider whether GHG standards should be established, as stated above, the agency cannot provide an estimated schedule for potential regulation of GHGs for any NSPS source category.